

CLAIMS

1. A process of producing a wax composition mainly comprising a wax, comprising the step of mixing the wax and a component to be mixed with the wax by applying an external force at a temperature lower than the melting completion temperature of the wax.
5
2. The process of producing a wax composition according to claim 1, wherein the step of mixing the wax and the component at a temperature lower than the melting completion temperature of the wax is followed by the step of heating the mixture at or above the melting completion temperature of the wax.
10
3. The process of producing a wax composition according to claim 1, wherein the component to be mixed with the wax comprises a polymer.
15
4. The process of producing a wax composition according to claim 1, wherein the polymer is an amorphous polymer, and temperature during the mixing is at or above the glass transition temperature of the amorphous polymer.
- 20 5. The process of producing a wax composition according to claim 3 or 4, wherein the polymer is isoprene rubber or natural rubber.
6. A biodegradable wax composition mainly comprising a wax, containing a biodegradable polymer, and having a residual solvent concentration of 3 ppm or lower.
25
7. A biodegradable wax composition which mainly comprises a wax and contains a biodegradable amorphous polymer and is obtained by the process of producing a wax composition according to claim 1.
- 30 8. The biodegradable wax composition according to claim 6 or 7, wherein the polymer is isoprene rubber or natural rubber.
9. A biodegradable wax composition mainly comprising a wax and having a moisture permeability of $3 \text{ g}\cdot\text{mm}/\text{m}^2\cdot 24 \text{ hr}$ or less at 40°C and 90% RH and a melt flow rate of 0.1 to 1000 g/10 min at 125°C and 1.2 kgf.
35

10. The biodegradable wax composition according to claim 9, wherein the content of the wax is 65% to 95% by weight.

5 11. The biodegradable wax composition according to claim 9, which contains 5% to 35% by weight of polyisoprene or natural rubber as a biodegradable polymer.

12. The biodegradable wax composition according to claim 11, wherein the biodegradable polymer has a weight average molecular weight of 200,000 or more.

10

13. The biodegradable wax composition according to claim 11, wherein the biodegradable polymer is crosslinked by a crosslinking agent.

15

14. A biodegradable film comprising a moistureproof layer and a biodegradable resin layer provided on at least one side of the moistureproof layer, the moistureproof layer comprising the biodegradable wax composition according to claim 9.

20

15. A biodegradable laminate comprising a paper material, the biodegradable wax composition according to claim 1 provided on the paper material, and a biodegradable resin layer provided on the biodegradable wax composition.

25

16. A biodegradable container comprising a biodegradable container body and the biodegradable film according to claim 14, the biodegradable film covering at least part of the surface of the container body with the biodegradable resin layer facing the direction opposite to the container body.

30

17. A wax composition mainly comprising a high-melting wax component having an endothermic peak at 100°C or higher in DSC and a low-melting wax component having an endothermic peak at 40°C or higher and lower than 100°C in DSC and containing a polymer.

35

18. The wax composition according to claim 17, which has a ratio of the endothermic value ΔH in the region higher than 100°C to the endothermic value ΔH in the region lower than 100°C of 0.1 to 5.0 in calorimetry of the wax composition with a DSC.

19. The wax composition according to claim 17, which has a melt flow rate of 0.1 to 1000 g/10 min at 125°C and 1.2 kgf.

5 20. The wax composition according to claim 17, wherein the high-melting wax component is an amide type wax.

21. The wax composition according to claim 17, wherein each of the high-melting wax component, the low-melting wax component, and the polymer is biodegradable.

10

22. The wax composition according to claim 17, wherein the polymer is polyisoprene or natural rubber.

15

23. A moistureproof film comprising a moistureproof layer and a resin layer provided on at least one side of the moistureproof layer, the moistureproof layer comprising the wax composition according to claim 17.

20

24. A process of producing a laminate having a layer comprising the wax composition according to claim 17, comprising the step of subjecting the wax composition to processing involving heating at a heating temperature of 100°C or higher, the heating temperature being such that the ratio of the endothermic value in the region higher than the heating temperature to the endothermic value in the region lower than the heating temperature in calorimetry of the wax composition with a DSC is 0.1 to 5.0.

25

25. The process of producing a laminate according to claim 24, wherein the processing involving heating is molding by melt extrusion.